

AMENDMENTS TO THE CLAIMS

Claims 1-13 (Canceled)

Claim 14 (Original):): In an electronic device having a processor coupled to a computer readable memory for implementing steps, a method of calculating a transform matrix for transforming a field vector from a second field to a field vector in a first field, the method comprising the steps of:

a) receiving a reference code state chosen for the first field;

b) generating a first field vector of the reference code state;

c) iterating a linear feedback shift register (LFSR) state from the first field vector to form a new LFSR state;

d) generating a new field vector from the new LFSR state;

e) assembling the first field vector and the new field vector into a transform matrix. The method recited in Claim 13, the assembling step comprising the steps of ~~wherein assembling step e)~~ comprises the following steps:

_____ e1) providing the first field vector as the bottom row in the transform matrix;

_____ e2) providing the new field vector as the next highest row in the transform matrix;

and

_____ e3) repeating providing step e2) a total of N-2 times for a total of N rows in the transform matrix; and

f) repeating steps c) through d) a quantity of N times, wherein N is a degree of a polynomial defining the first field and the second field.

Claims 15-33 (Canceled)

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Claim ~~34~~ (Presently Amended): An electronic device for generating a mask for a linear feedback
shift register (LFSR), the electronic device comprising;

a processor;

a computer readable memory unit coupled to the processor, the computer readable memory containing program instructions stored therein that, when executed via the processor, implements a method of calculating a transform matrix for transforming a field vector from a second field to a field vector in a first field, the method comprising the steps:

- a) receiving a reference code state chosen for the first field;
- b) generating a first field vector of the reference code state;
- c) iterating an LFSR state from the first field vector;
- d) generating a new field vector from the new LFSR state;
- e) assembling the first field vector and the new field vector into a transform matrix,

~~The electronic device recited in Claim 33 the assembling step comprising the steps of wherein assembling step e) comprises the following steps:~~

- _____ e1) providing the first field vector as the lowest row in the transform matrix;
_____ e2) providing the new field vector as the next highest row in the transform matrix; and
_____ e3) repeating providing step e2) a total of N-2 times for a total of N rows in the transform matrix; and
_____ f) repeating steps c) through d) a quantity of N times, wherein N is the a degree of the a polynomial defining the first field and the second field.

Claims 35-41 (Canceled)